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EXAMINER

MORRISON, THOMAS A

ART UNIT PAPER NUMBER

3653

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,478

Applicant(s)

ITO ET AL.

Examiner

Thomas A. Morrison

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/28/2004
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear what is meant by the recitation "a rotation drive mechanism control section for adjusting a pivot angle by which the rotation drive mechanism allows the plate suction section and the support section to pivot, in accordance with the amount of movement of the support section in the plate transport direction **per unit**". (emphasis added).

Regarding claim 3, it is unclear what element(s) are referred to by the recited "other points" in line 8 of claim 3.

Regarding claim 4, it is unclear what is meant by the recitation "a ratio of the pivot angle to the amount of movement of the support section in the plate transport direction **per unit** is different between before and after the plate is removed from the storage section". (emphasis added).

Regarding claim 6, it is unclear what is meant by the recitation "the rotation drive pulses from which the linear motion drive pulses corresponding to the rotation drive are removed".

Regarding claim 10, it is unclear which element is referred to by the recited "its" in line 8.

Regarding claim 11, it is unclear which element is referred to by the recited "center of pivot" in line 9.

Regarding claim 11, it is unclear which element is referred to by the recited "its" in line 13.

Claims 11 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (1) the omitted structure in claim 11, which allows the supply of negative pressure to the plate suction section to be terminated; (2) the omitted structure in claim 15, which allows the supplying section to supply the plate toward a cylindrical recording drum; and (3) the omitted structure in claim 15, which causes the plate to be mounted around a perimeter of the recording drum such that the image recording layer faces outwards. What structures perform these functions in claims 11 and 15?

Regarding claim 12, it is unclear what reference point is used to define the recited slanting position. Are the plates in a slanting position relative to a horizontal plane? Also, it is noted that "slanting position" can be considered to be merely the name of a position. One possible solution would be to amend the claim to recite a "slanted position" and give some reference point by which the slanted position is defined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 12-14, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,785,309 (Halup et al.).

Regarding claim 1, Figs. 2-9 show a plate supplying apparatus (Fig. 2) for transporting and supplying a stack of plates one by one while reversing faces of each plate, the apparatus comprising:

a storage section (12) for storing a stack of plates (10);

a plate suction section (including 18) for sucking around an end portion of a plate (10) to be transported which is stored in the storage section (12);

a support section (119) for supporting the plate suction section (including 18);

a linear motion drive mechanism (whatever drives 119 from side to side) for moving the plate suction section (including 18) and the support section (119) in a plate transport direction (right to left);

a rotation drive mechanism (whatever rotates 116) for turning the plate (10) sucked by the plate suction section (including 18) by pivoting the plate suction section (including 18) and the support section (119), independently of the movement of the

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plate suction section (including 18) and the support section (119) in the plate transport direction;

a linear motion drive mechanism control section (whatever structure controls 18 and 119) for controlling an operation of the plate suction section (including 18) and the linear motion drive mechanism (whatever drives 119 from side to side);

a rotation drive mechanism control section (whatever controls the angle by which 116 is rotated up and down) for adjusting a pivot angle by which the rotation drive mechanism (whatever rotates 116) allows the plate suction section (including 18) and the support section (119) to pivot, in accordance with the amount of movement of the support section (119) in the plate transport direction per unit; and

a supplying section (see e.g., column 2, lines 47-50) for supplying the plate (10) sucked by the plate suction section (including 18) and transported toward another equipment device.

Regarding the "rotation drive mechanism control section" recitation, the pivot angle by which the rotation drive mechanism (whatever rotates 116) allows the plate suction section (including 18) and the support section (119) to pivot is dependent upon where element 119 is located along element 116. Namely, the farther away from the pivot point of element 116, the less of a pivot angle that elements 18 and 119 can be pivoted downward before element 18 comes into contact with a plate 10 in the storage section 12. Thus, the rotation drive mechanism control section (whatever controls the angle by which 116 is rotated up and down) will adjust the pivot angle by which the

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rotation drive mechanism (whatever rotates 116) allows the plate suction section (including 18) and the support section (119) to pivot, in accordance with the amount of movement of the support section (119) in the plate transport direction per unit.

Moreover, the recitation "for transporting and supplying a stack of plates one by one while reversing faces of each plate" in lines 1-3 of claim 1 is a statement of intended use. As such, this recitation has not been given any patentable weight.

Regarding claim 2, as best understood, Figs. 3 shows that the rotation drive mechanism control section (whatever controls the angle by which 116 is rotated up and down) adjusts the pivot angle until the plate (10) is removed from the storage section (12), such that the end portion of the plate (10) follows a line deviated from at least a reference path, which is an arc of a circle whose center is an other end portion of the plate (10) and whose radius is the length of the plate (10), toward the other end portion of the plate (10).

Regarding claim 3, as best understood, Fig. 3 shows that the rotation drive mechanism control section (whatever controls the angle by which 116 is rotated up and down) performs a separation operation by adjusting the pivot angle such that the amount of deviation of the end portion from the reference path is greater at a point when the end portion of the plate (10) has just been lifted off other plates stored in the storage section (12) than other points in the plate transport direction.

Regarding claim 4, as best understood, Figs. 2-5 show that the rotation drive mechanism control section (whatever controls the angle by which 116 is rotated up and

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down) adjusts the pivot angle such that a ratio of the pivot angle to the amount of movement of the support section (119) in the plate transport direction per unit is different between before and after the plate (10) is removed from the storage section (12).

Regarding claim 12, Fig. 4 shows that the storage section (12) includes a cassette which stores the plates (10) in a slanting position (e.g., see slant of plates in Figs. 4 and 6).

Regarding claim 13, Figs. 4-5 show that the plate transport direction is a horizontal direction.

Regarding claim 14, the recitation of the plates being stored in the cassette such that their image recording layers face downwards has not been given any patentable weight in view of MPEP, section 2115. Likewise, the recitation of the plate suction section sucking a support layer of the plate stored in the cassette, with the support layer being an opposite side of the image recording layer has not been given any patentable weight in view of MPEP, section 2115. Specifically, MPEP, section 2115 states that, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." See MPEP, section 2115. Thus, it is the examiner's position that all of the features of claim 14 are disclosed in Halup et al.

3. Claims 1-4, 10 and 12, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,759,679 (Muller).

Regarding claim 1, Figs. 1-6 show a plate supplying apparatus (Fig. 1) for transporting and supplying a stack of plates one by one while reversing faces of each plate, the apparatus comprising:

- a storage section (12) for storing a stack of plates (13);
- a plate suction section (including 17) for sucking around an end portion of a plate (13) to be transported which is stored in the storage section (12);
- a support section (Fig. 2) for supporting the plate suction section (including 17);
- a linear motion drive mechanism (including 20) for moving the plate suction section (including 17) and the support section (Fig. 2) in a plate transport direction (up and down);
- a rotation drive mechanism (including 30, 31 and 32) for turning the plate (13) sucked by the plate suction section (including 17) by pivoting the plate suction section (including 17) and the support section (Fig. 2), independently of the movement of the plate suction section (including 17) and the support section (Fig. 2) in the plate transport direction;
- a linear motion drive mechanism control section (including 14) for controlling an operation of the plate suction section (including 17) and the linear motion drive mechanism (including 20);

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a rotation drive mechanism control section (including 38 and 39) for adjusting a pivot angle by which the rotation drive mechanism (including 30, 31 and 32) allows the plate suction section (including 17) and the support section (Fig. 2) to pivot, in accordance with the amount of movement of the support section (Fig. 2) in the plate transport direction per unit; and

a supplying section (Fig. 1) for supplying the plate (13) sucked by the plate suction section (including 17) and transported toward another equipment device.

Regarding the recitation "a rotation drive mechanism control section", column 5, lines 30-49 explain that the rotation drive mechanism (including 30, 31 and 32) cannot operate at all unless the rotation mechanism control section (including 38 and 39) is compressed downward to activate motor 30. In other words, the rotation drive mechanism control section (including 38 and 39) controls the adjustment of the pivot angle (from 0 to 90 degrees) by which the rotation drive mechanism (including 30, 31 and 32) allows the plate suction section (including 17) and the support section (Fig. 2) to pivot, in accordance with the amount of movement of the support section (Fig. 2) in the plate transport direction (up and down) per unit, as claimed. Moreover, the recitation "for transporting and supplying a stack of plates one by one while reversing faces of each plate" is a statement of intended use. As such, this recitation has not been given any patentable weight.

Regarding claim 2, as best understood, Figs. 1-6 show that the rotation drive mechanism control section (including 38 and 39) adjusts the pivot angle until the plate is

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removed from the storage section (12), such that the end portion of the plate (13) follows a line deviated from at least a reference path, which is an arc of a circle whose center is an other end portion of the plate (13) and whose radius is the length of the plate (13), toward the other end portion of the plate (13).

Regarding claim 3, as best understood, Figs. 1-6 show that the rotation drive mechanism control section (including 38 and 39) performs a separation operation by adjusting the pivot angle such that the amount of deviation of the end portion from the reference path is greater at a point when the end portion of the plate (13) has just been lifted off other plates (13) stored in the storage section (12) than other points in the plate transport direction.

Regarding claim 4, as best understood, Figs. 1-6 show that the rotation drive mechanism control section (including 38 and 39) adjusts the pivot angle such that a ratio of the pivot angle to the amount of movement of the support section (Fig. 2) in the plate transport direction per unit is different between before and after the plate is removed from the storage section (12).

Regarding claim 10, Figs. 1-6 show that the support section (Fig. 2) supports the plate suction section (including 17) via compression springs (including 17 and/or 35 and/or 40) so as to move up and down; and when the plate suction section (including 17) sucks a plate (13) stored in the storage section (12), the plate suction section (including 17) is moved and placed in a direction outward from a center of pivot of the plate suction section (including 17) and the support section (Fig. 2) by means of its

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weight and a pressing force of the compression springs (including 17 and/or 35 and/or 40).

Regarding claim 12, Fig. 4 shows that the storage section (12) includes a cassette which stores the plates (33) in a slanting position. In particular, the plates are stored in a position that is slanted relative to the plate suction section (including 17) with the plate suction section (including 17) positioned as shown in Fig. 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Halup et al. patent as applied to claim 14 above, and further in view of U.S. Patent No. 6,675,712 (Marincic et al.). The Halup et al. patent discloses all of the limitations of claim 15, except for the supplying section supplying the plate toward a cylindrical recording drum; and the plate being mounted around a perimeter of the recording drum such that the image recording layer faces outwards.

The Marincic et al. patent discloses that it is well known to provide a plate supplying apparatus (100) in an external drum imaging system (10) having a cylindrical recording drum (including 30); and a plate (18) mounted around a perimeter of the recording drum (including 30) such that the image recording layer (36) faces outwards,

for the purpose of supplying plates to the external drum imaging system (10) and forming images on such plates. See e.g., Figs. 1-2 and column 3, lines 5-29 of Marincic et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the a plate supplying apparatus (Fig. 1) of Halup et al. in the environment of an external drum imaging system for the purpose of supplying plates to the external drum imaging system and forming images on such plates, as disclosed in the Marincic et al. patent.

Allowable Subject Matter

5. Claims 5-9 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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A handwritten signature in black ink, appearing to read 'PM' or 'RM', is positioned above the printed name.

PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600